





Front cover: In this issue we take a trip through downtown Minneapolis on Washington Avenue. A northbound North Washington Avenue car headed for Camden (42nd Avenue N.) crosses Hennepin Avenue. Behind it is Gateway Park, an attempt at civic beautification that became a hangout for the drunk and homeless, leading to the urban renewal demolition of the area in the 1960s. Both Richard Andrews photos.

Above: A southbound Minnehaha-Fort Snelling car is between Hennepin Avenue and 1st Avenue N. Many of the buildings in this photo are gone.

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The Minnesota Streetcar Museum operates the Como-Harriet Streetcar Line in Minneapolis and the Excelsior Streetcar Line in Excelsior. Its mission is to preserve Minnesota's electric railway heritage.

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Buses amid the streetcars

-Aaron Isaacs

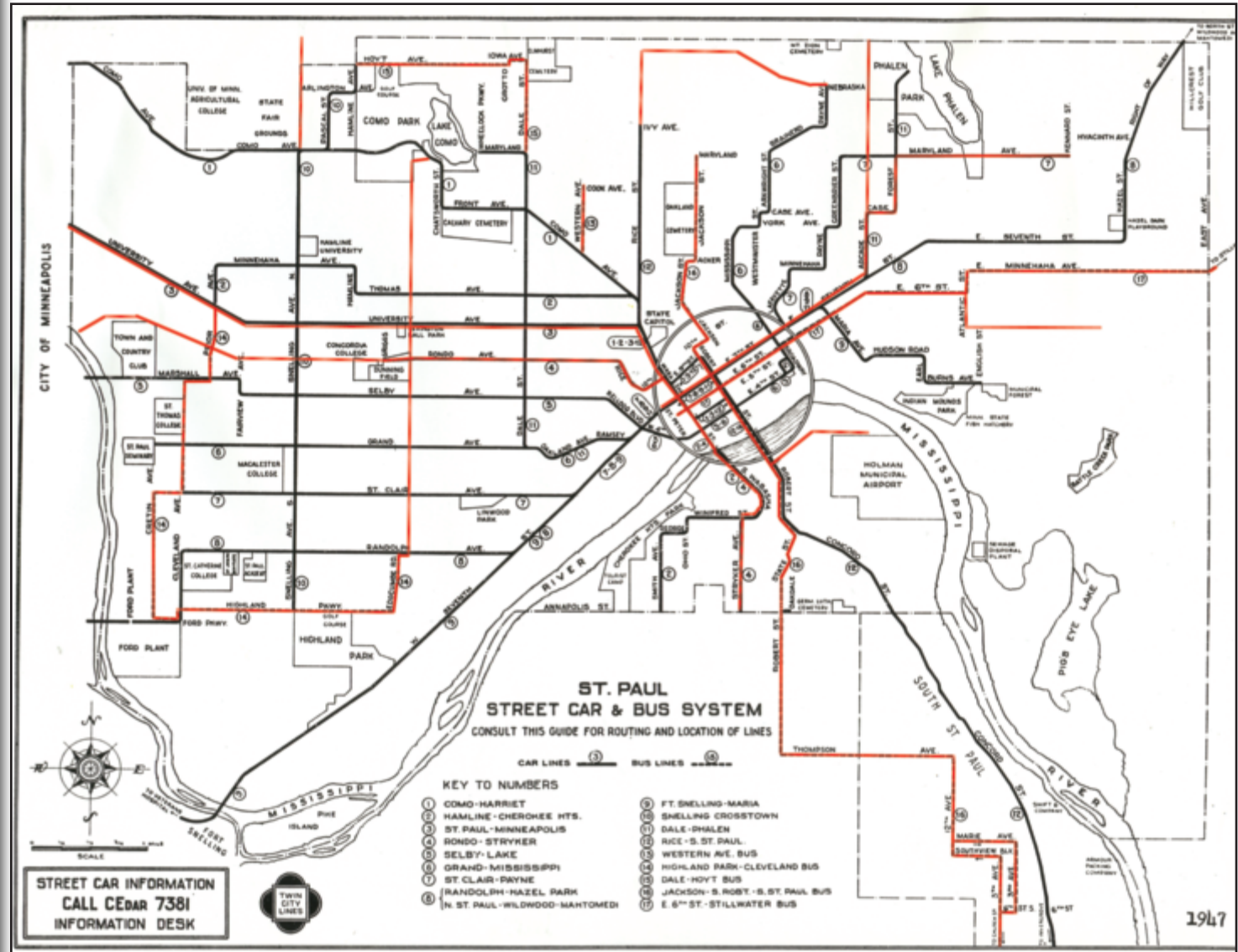
Remember learning about dinosaurs when you were a kid? The textbooks always mentioned that mammals coexisted with the dinos, but were small and insignificant for millions of years. They didn't dominate the earth until

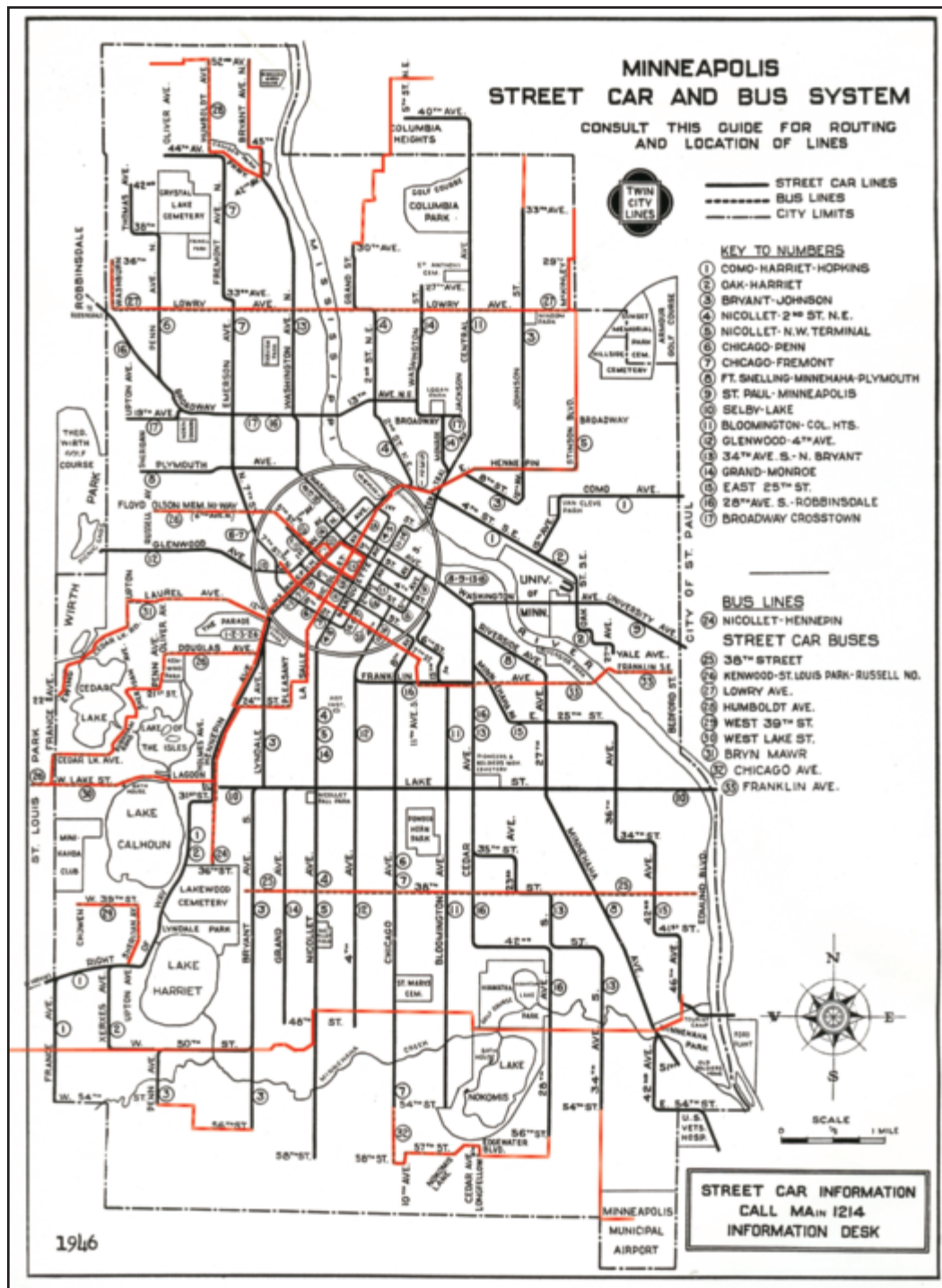
the asteroid hit and wiped out the big lizards. That's how it was with buses. They first appeared during the height of the streetcars, yet played a very secondary role until the entire system was converted in 1952-54.

Although we're the Minnesota Streetcar Museum, the bus history is intertwined with the streetcars and is pretty interesting in its own right. So

for this once we'll leave the tracks behind and explore some rubber tired history.

Today we'd call the automobile a disruptive technology. It rewrote all the rules and it took years for the legal system to catch up to it. Kinda like Uber today. The streetcar companies were essentially regulated utilities. In exchange for an exclusive franchise to





run streetcars in each city, they were subject to heavy regulation of fares and routes by the city. Along came the automobile and it didn't take long for drivers to eye the passengers waiting at car stops and think "Why not pick them up for the nickel fare? I'm going that way anyway."

About 1918 jitneys appeared by the hundreds, scooping up streetcar passengers who were happy to get to their destinations faster. The streetcar companies cried foul, but it took a few years for city ordinances to catch up and outlaw jitneys.

Buses had begun to appear, and enterprising jitney operators saw them as a bigger, more profitable jitney. Bus lines, both local and intercity, began to proliferate in the early 1920s. Here was another unregulated threat to the streetcar business. For example, four separate companies began running buses between downtown Minneapolis and downtown St. Paul in competition with the streetcars.

TCRT put its toe in the water and did some limited experiments. In 1919 it deployed three lines that the Schedule Department log book called jitneys, all in north Minneapolis. The routes are unclear, but they supposedly ran on Emerson, Lyndale and Penn Avenues. That's all we know, because there are no further references to them. They seem to have been short-lived.

TCRT's first real bus line came in 1921 and the bus that ran it carried the number 1. It had a wood body built on a truck chassis by the Ecklund Brothers at 28th and Lyndale Avenue S. in Minneapolis. Their shop still stands today. The bus connected the end of the 2nd Street NE line at 30th and Grand Street with the North Washington Avenue line via the Camden bridge. The next year it was extended to 44th and Fremont to connect with the Chicago-Fremont line.

1922 also saw the experimental electric trolley bus line on Bloomington Avenue from the end of the streetcars at 38th Street to 48th Street. It was unsuccessful and streetcars took over within a few months, but it allowed TCRT to rule out electric buses and embrace the gasoline powered version.

TCRT really committed to buses starting in 1924. They bought Twin City Motor Bus Company, their biggest competitor on the University Avenue route between the downtowns. TCMB also ran from St. Paul to White Bear Lake. TCMB in turn acquired American Auto Transit, Minneapolis & St. Paul Bus Line, Intercity Transportation and Kenny Bus Company. That put the Minneapolis-St. Paul via University Avenue route entirely under TCRT control. The buses ran express (what we'd now call limited stop), stopping about every mile, and provided a faster alternative to the streetcar.

Those purchases of other companies brought these routes into the system:

- St. Paul-Stillwater via Lake Elmo
- St. Paul-South St. Paul via West St. Paul (essentially today's Route 68)
- St. Paul-Mahtomedi
- Minneapolis-Glen Lake via Excelsior Blvd. (today's Route 12)
- Minneapolis-St. Paul express via



Bus #1 at 30th and Grand Street NE. Here it met the 2nd Street NE streetcars and shuttled across the Camden bridge to connect to the North Washington streetcar.

Como Avenue

- Minneapolis-St. Paul express via Selby, Marshall and Lake Street

TCRT did some major expansion of its own in 1926 with new crosstown lines on 38th Street (today's Route 23) and Lowry Avenue (today's Route 32). It also inaugurated the Nicollet-Hennepin line (today's Route 17 from downtown to Uptown). The line ended at Hennepin and 36th Street and ran with unusual gas-electric buses.

On December 31, 1927, TCRT extended its near monopoly of local transportation by buying stock control of Yellow Cab Corporation of Minnesota. The deal included Yellow

Cab and Red Top Cab in Minneapolis, Town Taxi in the Minneapolis suburbs and Rochester, and Yellow Cab in Duluth. With this acquisition came about 350 taxis and several dozen rental cars ("drive yourself" was the term back then). The taxi purchase proved to be high maintenance for limited profit, and TCRT sold the cabs and rentals in 1929.

From 1927 to 1933 TCRT extended both streetcar and bus lines and created some new bus shuttles that acted as

extensions of streetcar lines. The Lyndale Avenue S. line started at 58th and Lyndale and fed the Bryant streetcar at 50th and Bryant. It didn't last long, replaced by an extension of the Bryant streetcar to 56th Street in 1931. The West 39th Street line started at 39th and Chowen and fed the Como-Harriet and Oak-Harriet streetcars at 43rd and Upton.

1932 saw the first replacements of streetcars by buses when the Stillwater, White Bear and Excelsior lines were abandoned. The Minnesota Highway Department purchased the streetcar right of way from Excelsior to just west of Highway 101 and built Highway 7 on it. In 1935 TCRT began Excelsior Express service to Minneapolis over the new highway.

In 1937 a new crosstown debuted on Cleveland Avenue in St. Paul, connecting Highland Park to the Interurban at Prior and University (today's Route 87).

The first replacements of center city streetcar lines happened in 1938-1941. Not surprisingly, they were some of the most lightly patronized. The buses available at that time could only carry 25-30 passengers, so converting heavy lines wasn't really an option. The conversions were:

- 1938 Kenwood
- 1938 St. Louis Park. Highway 100 was under construction and TCRT

used the construction of the Minnetonka Blvd. bridge over the new highway as an excuse to convert the line.

- 1938 Jackson-South Robert Street. Buses replaced the Jackson Street portion. The West St. Paul bus already duplicated the Robert Street portion of the line, so no new service was needed there.

- 1938 Merriam Park shuttle. Some additional short trips were added to the Highland-Cleveland crosstown bus to replace the streetcar.

- 1939 Bryn Mawr. Because of closing the rickety Laurel Avenue bridge west of downtown. The buses detoured via Glenwood Avenue.

- 1939 Hope-East 4th Street. This short line on St. Paul's east side was not replaced, as the Stillwater-Lake Elmo bus ran on nearby East 6th Street.

- 1940 Franklin Avenue. Besides replacing the streetcar, bus service was extended through Prospect Park to Franklin and Bedford.

- 1940 6th Avenue N. The street and all the buildings fronting it were demolished to build Olson Memorial Highway. Replacing the tracks was never part of the plan.

- 1941 Western Avenue shuttle that fed the Como-Harriet at Como and Western.

The 1939 TCRT Annual Report

Twin City Motor Bus Company, displaying its fleet in front of the St. Paul downtown library, was one of four to challenge TCRT in the University Avenue corridor between the downtowns. TCRT bought them all out and kept running the express buses that stopped about every mile along "The Avenue".





Above: The tracks are still in Water Street, but buses have replaced the high speed suburban cars to Excelsior in 1932.

Below: World War II workers, mostly women, board in a St. Paul neighborhood for their shift at the New Brighton munitions plant. Both Minnesota Historical Society collection.



includes a couple of illuminating comments on replacing streetcars with buses and experimenting with new bus routes.

"The flexibility in the operation of motor buses carries with it demands for extensions of that type of service which were not made before the development of the present type modern motor bus. Residents of various districts, who now demand bus service, formerly realized that the expenditures for the extension of street railway facilities were so great in proportion to the prospective patronage that there was not the insistence for the extension of car lines that there is at the present time for the extension of service with buses. We have recently inaugurated a number of such extensions to existing street car and bus lines on a trial basis, which provides that if the patronage, during the trial period of 30 days, is not equal to the standard agreed upon the service will be discontinued. Our experience has been that in districts where extensions are not voluntarily made by the Company, the patronage is usually much less than the residents in the district claim it will be when the request for the service is made, hence the trial period of operation has been agreed upon for the purpose of determining whether or not there is sufficient patronage to warrant an extension. There is no better method than a trial operation, with a definite understanding that the service will be discontinued if there is not sufficient patronage. This appears to be a fair solution of the problem and reacts favorably upon the public relations which we realize are of great value to the Company.

The policy of substituting buses for street cars where buses can handle the traffic without unduly increasing the number of units required to care for the peak service, and where such substitutions will eliminate capital expenditures which would be required if the railway operations were continued, will be followed in the future.

There has been no change in our experience that increased patronage does not necessarily follow the substitution of buses for street cars."

TCRT was unable to buy new streetcars to handle the crush of World War II ridership, but it did acquire about 90 additional buses. When the New Brighton munitions plant opened in 1942, TCRT created new routes from downtown Minneapolis and downtown St. Paul timed for the round the clock shift changes. The downtown-to-downtown expresses via University Avenue and Selby-Marshall-Lake Street were annulled for the duration of the war to free up buses. Local buses were added to supplement the Interurban streetcars.

To save fuel, the state in 1942 established a 35 mph state speed limit. It caused TCRT to rewrite the Excelsior Express schedule.

Several new shuttles were created to extend the reach of the streetcar lines.

- A loop through the western part of Robbinsdale to feed the Robbinsdale streetcar line.

- A connection from the Dale Street streetcar at Dale and Maryland through the neighborhood north of Lake Como to the end of the Snelling Avenue streetcar at Hamline and Hoyt.

- A shuttle from the end of the 2nd Street NE streetcar at 30th and Grand Street to the city limits at 37th Avenue NE and 3rd Street.

- Downtown St. Paul to Holman Field

- A shuttle from the end of the 34th Avenue line at 54th Street to Wold-Chamberlain Field.

During the war a bus garage replaced some of the streetcar storage tracks at Nicollet Station. Garage facilities were added to North Side Station in 1946 and to Duluth Station in 1948.



During the 1940s, TCRT standardized on 35-foot Mack buses, buying 206 of them.

TCRT hired a consultant to evaluate the transit system and make recommendations for the postwar period. With gas and tire rationing ending, and defense plants switching back to automobile production, there was no question that the wartime ridership bubble would end. Not surprisingly, the consultant proposed an orderly conversion to buses. TCRT's management partially embraced the idea, but instead bought 141 new PCC cars. Furthermore, it extended the Nicollet Avenue line, rebuilt the outer end of the France Avenue line, rebuilt the St. Paul portion of the Interurban, rebuilt a piece of the Maria line severed by the upgrading of Highway 12 and double-tracked a single track bottleneck on Snelling Avenue at University. Clearly management intended for the heavy streetcar lines to have a future.

That said, management embraced the selective conversion of more lightly traveled lines. Several were converted to bus in 1947-1948:

- Outer end of the N. Washington line from Camden to 52nd and Bryant Ave. N.
- Rondo-Stryker

- North West Terminal
- Robbinsdale
- In east St. Paul on Arcade, Case, Forest and Maryland Avenue East

This same period saw a whole series of new bus services. Three of them connected the end of one streetcar line with the end of a parallel line, not a bad way to get ridership in both directions. They were:

- From the end of the Bryant line at 56th and Bryant to the end of the Bryant-Penn line at 54th and Penn.
- From the end of the Chicago line at 54th and Chicago to the end of the 28th Avenue line at 56th Street and 28th Avenue.
- From the end of the Rice Street line at Rice and Ivy to the end of the Mississippi line at Payne and Nebraska.

As a low cost alternative to running their own buses, in 1947 TCRT entered into free transfer agreements with two suburban bus companies:

- Northwest Bus Company to feed the Rice Street and Mississippi streetcar lines
- North Hennepin Transit to feed the

Robbinsdale streetcar line.

Bus routes were extended in St. Louis Park, and into Columbia Heights, Falcon Heights and Landfall for the first time. A new feeder connected the Interurban with St. Anthony Park via Raymond Avenue. The Rondo line was extended all the way to the Desnoyer Park neighborhood near the Mississippi River.

Two ambitious new crosstowns were attempted on Lexington Parkway in St. Paul and on 50th Street across south Minneapolis extending into Edina. Neither was successful and they were abandoned after a couple of years. Many years later Metro Transit revived both to feed the Green and Blue light rail lines.

The hostile takeover of TCRT management happened in 1949 and with it a complete change in philosophy. That year buses carried just under 23 percent of total ridership. Streetcars were still the main event, but not for much longer.

The Suburban Bus Companies

Small bus companies began serving the Twin Cities' suburbs in the early 1920s and others appeared later. TCRT's 1924-1926 buying spree absorbed several of them, but others lasted long enough to be folded into Metro Transit in the 1970s.

Bloomington Bus Company ran the Lyndale Avenue-Old Shakopee Road line through Richfield and Bloomington, now split into a series of Metro Transit routes.

Deephaven Bus Company connected Deephaven with Minneapolis via Minnetonka Boulevard.

Boulevard Transportation started the Minneapolis-Wayzata-Mound service and became part of Northland Greyhound. Eventually Greyhound

spun off the operation to Zephyr Lines. Metro Transit acquired it in 1967 and it's now Route 645.

Mercury Lines ran from Minneapolis to the Hennepin County Workhouse in Plymouth via Olson Highway and County Road 15. This and much of Golden Valley was later served by Medicine Lake Lines. The Golden Valley portion is now Routes 755 and 756. The Plymouth portion is Plymouth Metrolink.

North Hennepin Transit covered the northern half of Golden Valley, plus Crystal and New Hope. For years it fed the streetcars at Robbinsdale. Metro Transit bought it in 1972 and it's routes were incorporated into what is now Route 14.

The Minneapolis, Anoka & Cuyuna Range interurban to Anoka had bus competition and began running buses itself after the wires were torn down by a 1939 tornado. The Anoka-Minneapolis Bus Company ran the East River Road service until it was taken over by Dickinson Lines, which also absorbed the Minneapolis-Spring Lake Park line run by Columbia Transit. They became part of Metro Transit in 1972 and are now Routes 852 and the outer portions of Route 10.

Rice-Edgerton Bus Company served the Rice Street corridor from St. Paul to Shoreview and Circle Pines. It gave way to North Suburban Lines and is now Route 262.

The Chicago, Burlington & Quincy ran commuter trains from St. Paul to St. Paul Park until 1924. By that year the Terminal Motor Coach Company had countered with hourly service, which probably killed the commuter trains. At some point North Star Bus Company took over the route. It later became part of St. Paul South & West Bus Company, which also ran in South St. Paul and West St. Paul until Metro Transit bought it.

The challenge of scheduling transit service

-Aaron Isaacs

The bane of every large transit system, then and now, is the uneven service demand between the rush hours and all other times. The rush hours required about twice as many streetcars as the midday service, yet many of those additional cars were on the street for less than two hours in the morning and another two hours in the afternoon. So focused was the peak demand that quite a few pulled out of the carhouse, ran one trip and were done. This same issue bedevils Metro Transit to this day.

Our museum mission is to understand the Twin Cities' transit history and the economics can't be ignored, so here is my attempt to make scheduling of trainmen understandable. It's pretty complicated, but that was the reality.

The rush hours added to both the capital cost and the operating cost. Let's start with the extra capital investment. Without the rush hour peaks only three carhouses would have been needed instead of six, or the six would have been half as big. The fleet would have been half as large. The sizes of the repair shops and repair crews would have been smaller. There would be less electric generating load, certainly less peaking power needed. In turn the number of trainmen (motormen and conductors) would have been greatly reduced, lowering the operating cost.

A 1916 TCRT report breaks down how the much the fleet was used.

76 cars ran only 1 hour per day.

81 cars ran 2 hours per day.

70 cars ran 3 hours per day. 60 cars ran 4 hours per day.

Add a spare factor of ten percent (23 cars) and that's 250 cars out of a fleet of about 1000 that saw only minimal use.

In the following decades ridership dropped and the fleet shrank to about 800 cars. Off-peak ridership fell much faster than rush hour ridership, so the contrast between the peaks and the off-peaks increased, making economic scheduling of trainmen even more difficult. In *Electric Railways of Minnesota*, Russ Olson summarizes the number of streetcars in service by time of day in 1947. It looked like this.

Time of Day	Mpls	St. Paul	Total
AM Peak	481	228	709
Midday	213	111	324
PM Peak	474	232	706
Night	145	74	219
Owl	24	16	40

The peak now required twice as many streetcars as the midday. That's the impact of the automobile. It diverted from the streetcars many more off-peak, non-work trips, which are harder to serve with transit. Non-work trips tend to be different each day, and often require one or more transfers to reach the destination, which make them slow, inconvenient and easy pickings for the automobile.

Work trips are much easier to serve with transit because they repeat at the same time each day. They are much more likely to be destined for downtown, where parking isn't free and traffic congestion is an issue. More demand means more service, so streetcars ran more frequently, which in turn made it easier to retain riders.

Because the rush hours retained ridership while the midday shrank, the number of streetcars working four hours or less per day increased.

There was always tension and even open conflict between TCRT and its trainmen over how the work was assigned. Labor was represented (and still is today) by Local 1005 of the Amalgamated Transit Union.

Scheduling the trainmen

Four times each year TCRT changed schedules. These events were (and still are) called "picks" or "choices". Routes may be added, modified or discontinued. Service is fine-tuned to meet demand and improve on-time performance. The revised work has to be broken up into operator assignments. This is called "run cutting". Following a process largely unchanged since streetcar days, Metro Transit still does it, only with computers.

To describe the run cutting process, let's use the provisions of the 1939 union contract. All trainmen worked a 6-day, 48-hour week, or at least that was the goal. In fact the runs varied in length because trips could not arbitrarily stop at the 8-hour mark. They had to continue until the streetcar either pulled in to the station or the crew was replaced (relieved) at the point on the line nearest the station. The union contract permitted runs totaling 46.6 to 49.5 hours per week. If the run was under 8 hours, the trainman received 8 hours anyway, referred to as "guarantee pay". Time over eight hours was overtime paid at time and a half. The contract also required that 65 percent of the runs be "straight runs", meaning a continuous 8 hours or so.

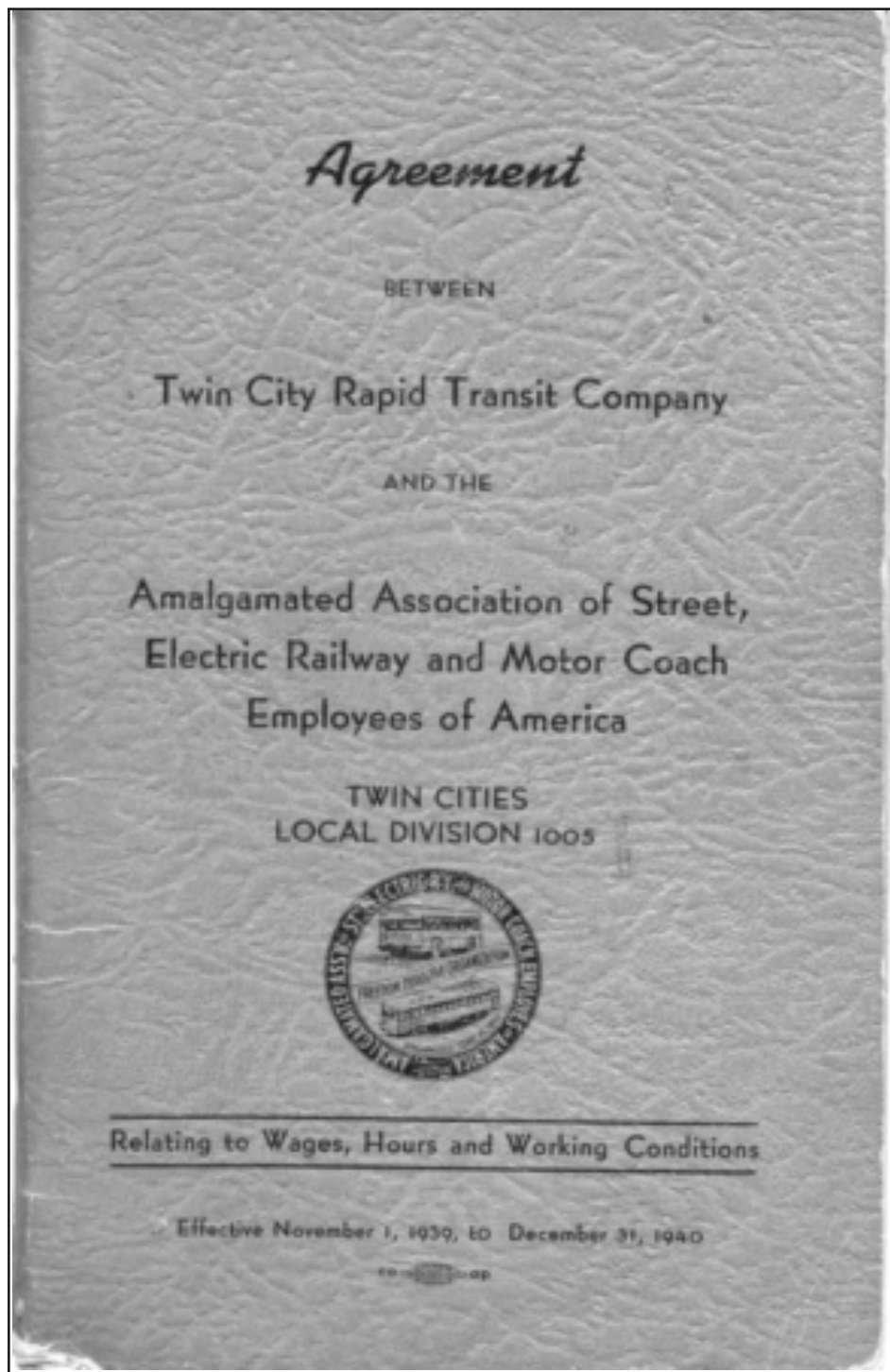
The run cutting process started with straight runs. From about 4-5 AM every trainmen's room was occupied by some of the station's highest seniority trainmen, about to pull out on the first day runs that went until about noon-1 PM. Morning work was (and still is) easier than afternoon work--fewer passengers and less traffic. Straight day runs kept pulling out until about 6 AM. All would be relieved on the line during the midday, replaced by "sunshine" runs that worked until after the PM rush hour. About 3-4 PM, a series of "night" runs

would pull out and go until about midnight.

Scheduling the straight runs was the easy part. After the 300 or so streetcars that stayed on the street through the midday were assigned, all that was left over were the short rush hour-only pieces. Most of these became part of split shifts, or "2-piece runs". Because the trainmen were guaranteed 8 hours per day, it wouldn't do to have someone work 2 hours in the morning, another two hours in the afternoon, then get 8 hours pay. To prevent that from happening, portions of that 300 streetcar base were diverted into the 2-piece runs. There would typically be a long morning piece paired with a short afternoon piece, or vice-versa. These had to be completed within the maximum "spread time" (time from the first AM pullout to the last PM pullin or on-street relief), which in 1939 was 13.5 hours.

Because of the contract requirement that 65 percent of runs be straight (1-piece of about 8 hours), there was a limit on how many 2-piece runs that could be made. After that limit was reached there was still work left over, referred to as "open work". The cheapest way to cover open work was with overtime, which cost less than adding an extra board trainman to the payroll. However, the reservoir of available overtime fell well short of covering all the open work. The company's attempt to force mandatory overtime during World War II had resulted in an "overtime strike" that forced contract changes.

That's where the extra board came in. It was designed to cover the scheduled open pieces that didn't fit into picked runs, runs that opened up due to unexpected absenteeism, and unscheduled work that appeared on short notice. The unscheduled work could be extra trips in response to



events like football or baseball games, charters, school extras, or company moves like shop transfers and snow plowing. A certain number of extra board members were paid to sit in the station on "call", in case they were needed. Until sometime in the late 1930s, call time was unpaid. By the 1939 contract, the extra board had been divided into two parts, employees who were paid to be on call and others with the lowest seniority who could show up hoping to work, but not be paid until they received an assignment.

If you compare the 1939 and 1949 union contracts, it's easy to see how TCRT's economic challenges had increased. Ridership was dropping, yet the contractual provisions governing work hours had become more employee-friendly and wages had increased.

Just because union contracts cost TCRT more over time doesn't mean the changes weren't necessary. Like most big employers early in the 20th century, TCRT exploited its workers. Trainmen worked 6 days a week and about 10 hours per day. Much of the work was split shifts. The 10 hours might start at 5 AM and end at 8 PM, a "spread" of 13 hours. Trainmen had to buy their own uniforms. Conductors made change if a passenger lacked the exact fare and had to front the cost of the change out of their own pockets. The "extra board", which covered unscheduled work and filled in for illnesses and absenteeism, was unpaid while "on call" in the trainman's room waiting for an assignment.

The union persevered and gradually won better compensation and working conditions. The biggest change from 1939 to 1949 was shortening the work week from a 6 days and 48 hours to 5 days and 40 hours. The maximum

allowable spread time was shortened from 13.5 hours for regular trainmen and 14 hours for the extra board to 13 hours for everyone. By 1949, the entire extra board was paid. Minimum pay time to work a short tripper increased from 1.5 hours to 2 hours. "Plug-in" or "Report" time, paid to everyone to copy their scheduled work, prepare their streetcar for pullout and do their end-of-run paperwork increased from 10 to 20 minutes. The threshold to receive 2 weeks paid vacation dropped from 5 years of service to 2 years.

In the decades since, the amount of unscheduled "open" work has shrunk dramatically. There are fewer large events that require extra service. Now that Metro Transit is a government agency, federal rules prohibit it from running charter service. There are now part-time drivers who work short rush hour trippers. These changes have reduced the size of the extra board. Leading up to each rush hour, there are still "call" drivers at the garages as insurance to cover unexpected absenteeism. Between the rush hours the call drivers sit in buses that are deployed around the metro area where they can be sent quickly to fill in for buses that are late or broken down.

Otherwise Metro Transit continues to schedule its bus drivers and train operators in the time-honored manner, a living echo of the streetcars and Twin City Rapid Transit.

Transfers as a percent of ridership

This is sort of an addendum to the Spring 2019 issue of TCL, which was devoted to the Selby-Lake line. In it I speculated that passenger trips on the Lake Street crosstown portion of the Selby-Lake were short, because so many involve transfers to connecting lines. An examination of TCRT records

As the streetcar system expanded, it served more destinations and the

-10-

1891	21.1%	
1892	24.7%	
Bryn Mawr, Jackson lines open		
1893	21.5%	211
1894	22.5%	
1895	25.0%	
1896	25.6%	
1897	24.8%	222
1898	24.5%	
Como Interurban opens		
1899	24.4%	
Stillwater opens		
1900	24.6%	
1901	24.7%	251
1902	24.8%	252
1903	25.3%	253
1904	26.2%	265
White Bear branch opens		
1905	28.1%	317
Lake Street, Snelling crosstown, Lake Minnetonka, South St. Paul open		
1906	28.2%	354
Selby-Lake, Hamline, Randolph lines open		
1907	29.3%	364
Grand (Mpls) line opens		

1908	31.5%	368	34th Ave. S. line opens, Lowry, 38th
1909	32.5%	377	Street, Nicollet-Hennepin bus lines
Fort Snelling interurban, Hope St. line open			open
1910	32.7%	383	1927 37.1%
1911	33.6%	390	1928 37.7%
1912	35.5%	402	1929 38.8%
Johnson, 28th Ave. lines open			512
1913	36.3%	412	516
Xerxes, Arcade lines open			520
1914	36.3%	437	
Dale, Broadway, Franklin, Burns, Western lines open			
1915	37.3%	440	
St. Clair line opens			
1916	37.2%	445	
1917	36.9%	451	
1918	36.0%	452	
1919	33.1%	453	
1920	32.5%	467	
3rd Ave. bridge, 7th Street cutoff, Northwest Terminal line open			
1921	35.2%	472	
1922	35.9%	475	
1923	36.3%	491	
1924	35.7%	494	
TCRT buys Twin City Motor Bus Co, Ford Plant extension			
1925	36.3%	499	
1926	36.3%	504	

What stands out is the high transfer rate for the Selby-Lake line, which connected with 14 lines across south Minneapolis, plus all the lines in St. Paul. In contrast the suburban lines offered few transfer opportunities outside downtown and their transfer rates reflected that.

Minneapolis Filtration Company Is Municipally Owned— \$1.50 Revenue Each Day

From the Minneapolis Journal, April 22, 1923

The city of Minneapolis owns a street railway system, operating on a 3 cent fare, the tracks of which are wholly in Anoka county.

The system is known as the Minneapolis Filtration Railway company. It has trackage of a mile and a half. The line begins at the city limits and terminates at the filtration plant at Columbia Heights.

The car, of the pay as you enter, one man type, has a side door entrance. The city of Minneapolis collects the fares.

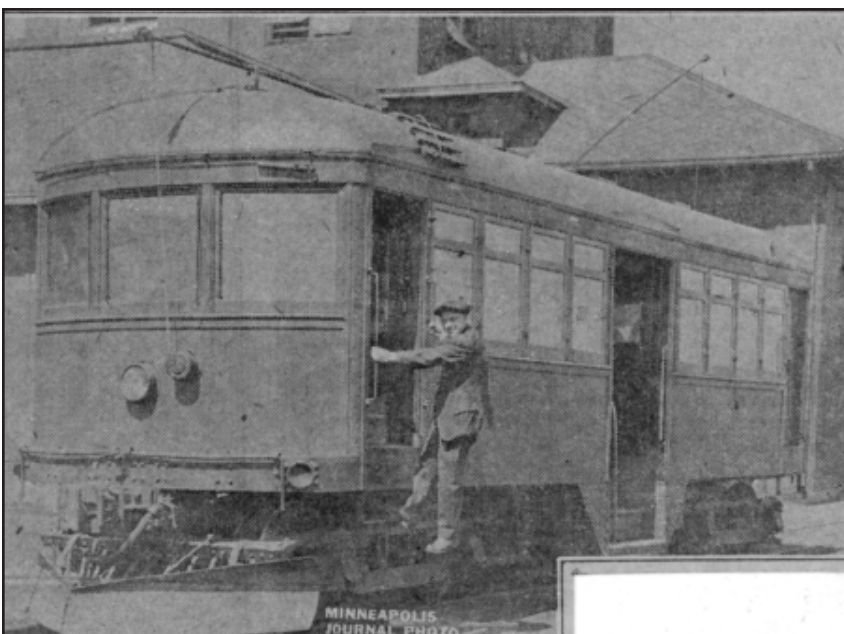
M. E. Handy, shown boarding the car in the picture, is as versatile as his name, and is the motorman, conductor, superintendent, lineman, trouble shooter, section boss, freight train conductor, brakeman, switchman, engineer and station agent, as well as trucker. And Mr. Handy says he likes

his job.

"I have about eight regular customers," he said. "They ride out in the morning and back at night, paying 3 cents for each ride. We allow the city employees to ride free. I begin the day at 7:30 a.m., and make eight trips a day, terminating the last at 5:45 p.m. daily and 6:45 Sundays. In the summer we carry some vacationists."

Records at the city hall show that the revenue from this municipally owned system is about \$1.50 a day.

Under a contract the Minneapolis Street Railway company assumes the liability for the line, supplies the power and the labor on the car although the city of Minneapolis contributes \$25 a month to the motorman's salary. The city pays the street-car company \$4,000 a year for its share in operating the system and collects and keeps the revenue from the line.



The Refresher

A DAILY CUSTOM

ROUTE SALESMEN WHO HAVE WORKED IN THE COLUMBIA HEIGHTS DISTRICT WILL WELL REMEMBER MYRON E. HANDY, THE MOTORMAN WHO OPERATES THE "DUMMY LINE" BETWEEN CENTRAL AVENUE AND THE MINNEAPOLIS WATER WORKS. FOR 22 YEARS MR. HANDY HAS MADE IT HIS DAILY CUSTOM, RAIN OR SHINE, TO STOP IN AT THE HILLTOP GROCERY AND HAVE A COKE. AT THE LEFT IS HANDY HAVING HIS TWICE-DAILY COKE. IN CIRCLE IS MYRON ABOUT TO ENTER HIS TROLLEY. HE HAS OPERATED ON THIS LINE FOR MORE THAN THIRTY YEARS.

DURING THE SUGAR RESTRICTION, HANDY HAS KEPT A BOX FILLED WITH COCA-COLA IN A SPECIALLY RESERVED SPACE IN THE REFRIGERATOR. TWICE A DAY AT 8:00 AM AND AT 3:30 PM HE HAS HIS COKE. EUGENE HAMLIN SERVICES THIS OUTLET FOR MR. HAYNEY, THE PROPRIETOR, AND HIS SON, BUD. BELOW IS THE STREET-CAR MR. HANDY OPERATES SEVEN DAYS A WEEK.

Washington Avenue through downtown

At one time Washington Avenue was the center of downtown Minneapolis. Development gradually moved south and by the 1920s it could be argued that either 5th Street or 7th Street was the center. Washington continued to be a major streetcar street until the end of service.

From 1891 until early 1894, most of the streetcars in Minneapolis had to circle the Loop on Washington Avenue, 1st Avenue S. (now Marquette), High Street (next to the river where the Main Post Office is today) and Hennepin Avenue. The Loop was established so that all the streetcars could meet at Hennepin and 1st Street to transfer passengers. For a couple of years, a transfer station was located there and passengers were required to pass through it to receive their paper transfers. Not surprisingly this system inconvenienced passengers by dragging them out of their way, then running them through a bureaucratic process simply to change streetcars. Pushing so many cars through the Loop created congestion and delays, so the transfer station system was abolished in 1894 and the number of lines routed through the Loop was reduced.

After the Loop was eliminated for most lines, Washington still played a major role. From north Minneapolis the Robbinsdale, Emerson, Plymouth and Camden (North Washington) lines all entered downtown on Washington, as did the 6th Avenue line until 1897 and the Penn-Fremont before 1920. Most turned off at 1st Avenue N. or Hennepin, but one or two always followed Washington all the way through downtown.

From the east the Interurban, Minnehaha, East 25th Street and 34th

Avenue S. lines used Washington to enter downtown. The Interurban and East 25th Street lines turned off at 5th Avenue S. Northbound Minnehaha cars terminating downtown turned off at 4th Avenue S. to jog over one block to 3rd Street. Through Minnehaha and North Washington cars stayed on Washington all the way through downtown.

Mind you this is a snapshot of one point in time. The 1925 downtown map at right shows a different snapshot with some different routings. TCRT was always fine tuning its schedules and often changed the pairing of lines north and south of downtown, which in turn changed their routes through downtown.

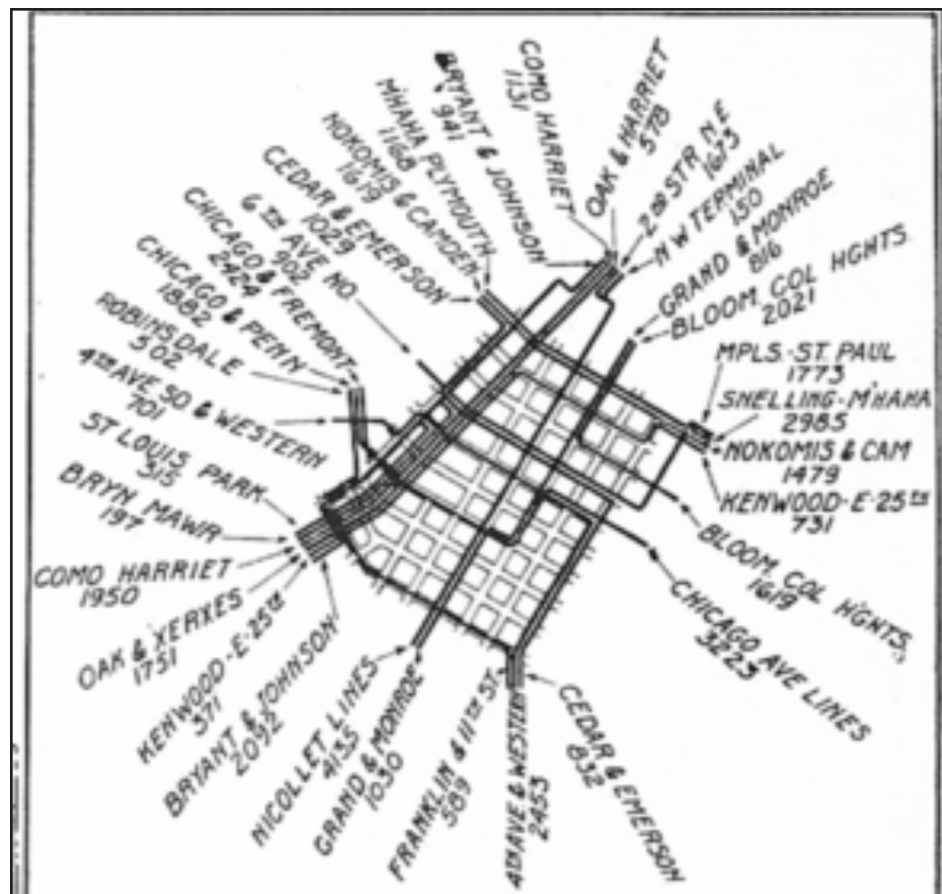
After North Side Station opened in 1915, Washington Avenue N. became a major deadhead route to and from downtown, adding to the traffic before and after rush hours.

The overnight owl cars all paused for several minutes once an hour to transfer passengers where they crossed Washington Avenue. That changed in 1926 when the transfer point was moved to 5th and Hennepin. During those hours the lines running on Washington were diverted to 5th Street to make the transfers work.

What follows is a block by block trip on Washington Avenue through downtown, starting from the east.

Above right: This 1925 map shows the routing of each streetcar line through downtown, and the number of passengers leaving downtown on each line.

Below right: Washington Avenue entered downtown by passing under the notorious Milwaukee Road viaduct. Trucks were always getting stuck due to the low overhead clearance. This is the June 19, 1954 last day trip.





Two more views of the Washington Avenue viaduct.

Top: The viaduct provided access to the Milwaukee Road Depot for passenger trains, and to the West Bank milling district for freight. Norton & Peel photo.



Bottom: As a low spot in the street, the viaduct was subject to flooding. When that happened or a truck got jammed in the streetcar portal, four streetcar lines were blocked and no detour was available. Both Minnesota Historical Society collection.

Moving north block by block:
Above: A westbound Interurban passes Park Avenue and the J. I. Case Tractor plant.

Below: Passing Portland Avenue.
Although frequently blocked by passenger trains, Portland crossed all the tracks to reach 1st Street and the Mississippi River. Both Richard Young photos.





Top left: Looking east from 4th Avenue.

Top right: Looking west with tracks diverging onto 4th Avenue. Both Joseph Zalusky photos, Hennepin County Library Collection.

Left: Crossing 3rd Avenue S. Star-Tribune photo, Minnesota Historical Society collection.



Above: The intersection of Washington and 2nd Avenue S., looking east on Washington toward the Milwaukee Road depot.

Below: Washington at Marquette Avenue, also looking east. This was the transfer point to the Nicollet-2nd Street NE line.



Above: Looking north on 2nd Avenue S. across Washington, with the Main Post Office in the distance.

Below: Looking south on 2nd Avenue S. at an approaching Grand-Monroe or Bloomington-Columbia Heights streetcar. All Joseph Zalusky photos, Hennepin County Library Special Collections.





Top: This view looks north on Washington from marquette Avenue.



Bottom: Eastbound street-cars are stopped at Nicollet Avenue in front of the original Nicollet Hotel around 1910. Like all the east-west downtown streets, Washington angles at Hennepin Avenue. A. D. Roth photo.



Left: Looking east on Washington from Hennepin Avenue. Minnesota Historical Society collection.

Above: A streetcar carrying a LOOP sign crosses Washington on Hennepin Avenue. W. C. Whittaker photo.

Below: This circa 1910 view looks north on Washington across Hennepin Avenue. Sweet photo, Minnesota Historical Society collection.





The camera is perched high in the Nicollet Hotel looking north on Washington. The bridge in the distance spans the railroad track at 4th Avenue N. Today this area is the fast developing North Loop neighborhood. Minnesota Historical Society collection.

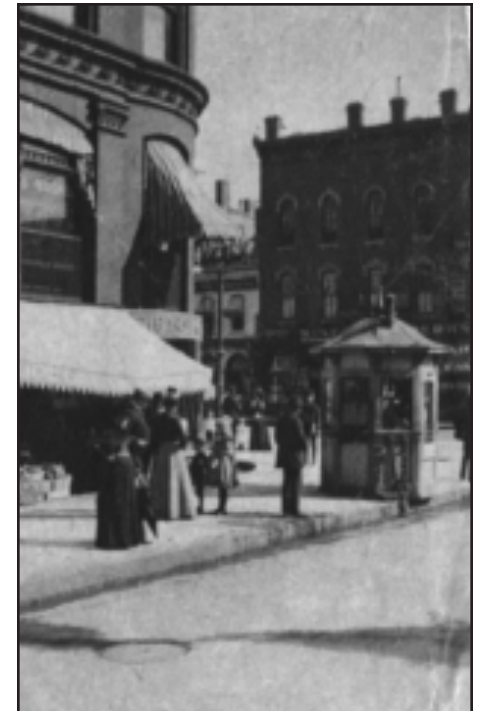


Some early views.

Bottom left: Horse cars are much in evidence on Washington at Nicollet in this stereo slide of a temporary celebration arch. This is probably about 1880. J. E. Staddon photo.

Top left: Around 1905 center poles are still holding up the overhead wire on Washington, looking east from Hennepin Avenue. Hennepin County Library collection.

Below: The starter's booth at Hennepin and Washington. Hennepin County Library collection.



Top: The camera is looking south at the intersection of 1st Avenue N., where a streetcar is turning off Washington Avenue. The second Nicollet Hotel anchors the corner at Hennepin. Minnesota Historical Society collection.

Bottom left: This is the block of Washington between 1st Avenue N. and 2nd Avenue N. Norman Rolfe photo.

Bottom right: We started this photo tour where Washington passed under the railroad leading to the Milwaukee Road depot. We leave downtown at the bridge over the Minneapolis & St. Louis and the Great Northern railroads at 4th Avenue N. The bridge has been replaced, but the bridge trusses have been installed on the new bridge, although they aren't structural. Norman Rolfe photo.





A Fort Snelling car passes the Federal Building between 2nd and 3rd Avenues.



At 5th Avenue the Interurban and the East 25th Street lines left Washington Avenue to travel through downtown on 5th Street.



A Fort Snelling car passes 5th Street, where the Interurban and East 25th Street cars entered and left Washington Avenue. That may be the Afternoon Hiawatha preparing to leave for Chicago.



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